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TRADING STAMPS

And Their Impact on Food Prices

U. S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division

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PREFACE

This is the third report issued by the Agricultural Marketing Service on the effect of the issuance of trading stamps by grocers on marketing practices, costs, and efficiencies. It is part of a continuing program of research designed to reduce the cost of marketing farm products.

Marketing Research Report No. 147, "Do Trading Stamps Affect Food Costs?" issued in January 1957, explained the basic characteristics of trading stamp plans. It also reviewed available information on the development and use of trading stamps, as well as some of the economic problems facing retailers and consumers as a result of widespread use of the stamps.

A second report, "Trading Stamps and the Consumer's Food Bill," Marketing Research Report No. 169, was issued in May 1957. This second report considered trading stamps from the consumer's point of view. It discussed information available from non-Government sources concerning response to and economic implications of trading stamp plans. Copies of these two reports are available upon request from the U. S. Department of Agriculture, Office of Information, Washington 25, D. C.

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SUMMARY

Trading stamps cost retailers an estimated $375 million during 1956, according to a survey of trading stamp companies conducted by the Agricultural Marketing Service. It is estimated that about a quarter of a million retail units issued stamps in 1956. The total cost of stamps issued is equivalent to about 168 billion trading stamps issued by retailers on retail sales of approximately $20 billion.

The increased use of stamps by food stores is the most important factor in the rapid growth of the trading stamp industry. Fifty-seven percent of all stamp business during 1956 was with retail food stores.

The cost of trading stamps to retailers exclusive of handling costs averaged $2.25 per 1,000 stamps, or a little more than 2 percent of each dollar of sales for which trading stamps were issued. Users of large quantities of stamps usually receive a volume discount; food retailers are more likely to be eligible for such a discount than other retailers.

Under existing competitive conditions in retail food stores it appears that the stores may be absorbing a substantial part of the cost of the stamps. Unless new efficiencies result from the use of stamps, the cost of these stamps to the retailers must be absorbed by lower profits per dollar of sales or higher prices.

Analysis of price data in 21 cities indicated that, on the average, food prices in stores adding trading stamps increased by about 0.6 percent in relation to prices in nonstamp stores. This finding is based on an analysis of a special tabulation of retail food prices collected by the Bureau of Labor Statistics for the Consumer Price Index. Data were analyzed for the period from November 1953 to March 1957. This study of prices was based on a comparison of trends in prices at stores giving trading stamps in relation to those not giving stamps. It did not compare actual prices in the two groups of stores. The difference in price trends observed in this study may have been caused in part by nonstamp stores lowering food prices to meet the competition of stores adding trading stamps.

Wide variations in relative price changes between stores that added stamps and those that did not issue stamps were found among the 21 cities as well as among the 5 food groups studied. The success or failure of a stamp program depends a good deal on local competitive conditions. It would appear that, on the average in the 21 cities studied, consumers who save and redeem stamps can more than recoup the relative price difference between stamp and nonstamp stores. However, the effects of trading stamps on food prices and the value of premiums obtained with stamps vary from city to city and store to store and among stores within the same city, and they may vary over time. Consumers need to evaluate grocery store prices and the merits of merchandise obtained from stamps as they would evaluate any other buying situation.

The trading stamp business is concentrated in a few large companies. The 10 largest stamp companies are estimated to have sold about 70 percent of all stamps that were sold to retailers during 1956. For about three-fourths of the stamp companies, stamps amounted to prepaid certificates redeemable in merchandise being marketed by the stamp company.

As of July 1957 the median age for 108 stamp firms for which information was available was 3-3/4 years. July 1955 to July 1956 was the period of most rapid formation of these companies--28 percent were organized during this period. Only 9 of the 108 firms had been in operation more than 25 years.

Most of the laws that directly affect trading stamps are State laws. During 1957 approximately 100 bills concerning trading stamps were proposed in the legislatures of 35 States--only 4 were enacted. There was no uniformity in the legislation covering the operation of stamp companies. Likewise, the stamp companies' contracts with retailers varied considerably, particularly in redemption rights afforded consumers and in company reserves maintained for consumers' protection.

TRADING STAMPS AND THEIR IMPACT ON FOOD PRICES

Prepared by
Market Organization and Costs Branch
Agricultural Marketing Service

INTRODUCTION

Trading stamps are not new; they have been used by retailers as a promotional device for more than half a century. 1/ Their phenomenal growth during recent years has been due largely to their wide adoption by food retailers, mainly supermarkets. 2/ Because of the importance of food in our daily lives, the question of who actually bears the cost of trading stamps is one that concerns all of us. This question is one of the most controversial issues in the history of food retailing.

The widespread use of stamps by supermarkets, together with the lack of specific information about the effect of stamps on retail food prices and about the nature and scope of the trading stamp industry, led the Agricultural Marketing Service to conduct research in these areas.

This research had two basic objectives. The first was to determine the overall scope and operations of the trading stamp industry. To do this, a survey of trading stamp companies was conducted during the spring and summer of 1957. Information was obtained as to the total gross revenue from stamps by stamp-issuing companies, the proportion of stamp revenues from food stores, and other major characteristics of the industry. The second objective was to determine the effect of the use of trading stamps on retail food prices. Analysis of a special tabulation of food prices collected by the Bureau of Labor Statistics (BLS) provided information on this point. Also, a special survey of shelf prices in supermarkets was made to supplement the BLS data.

This report is separated into four basic parts: (1) Scope of the trading stamp industry; (2) how trading stamp plans operate; (3) legal aspects of trading stamps; and (4) cost of trading stamps and their impact on retail prices, volume and profit.

1/ Trading stamps are defined as those "little pieces of gummed paper" issued by retailers to customers who in turn accumulate them in sufficient quantities to exchange for an item of value. This report is not concerned with cash register tape plans, coupons, or any type of promotion other than trading stamps.

2/ Super Market Institute's definition of a supermarket is accepted here; that is, a supermarket is a complete, departmentalized food store with a minimum sales volume of one million dollars a year and at least the grocery department fully self-service. This includes both chain and independent food stores.

SCOPE OF THE TRADING STAMP INDUSTRY

Size and Growth

Retailers paid an estimated 375 million dollars for trading stamps during 1956, according to a survey of the trading stamp industry by the Agricultural Marketing Service. A 375 million dollar volume for the trading stamp industry is equivalent to about 168 billion trading stamps issued by retailers with total retail sales of approximately $20 billion. 3/ This represents about 1,000 trading stamps for every man, woman, and child in the United States during 1956. The above figures are based on a survey of 199 active trading stamp companies. 4/

A list of 303 firms (thought to be trading stamp companies) was obtained from public and private sources. A mail survey, followed by personal interview of many of the nonresponding firms, showed that in mid-1957, of these 303 firms, 199 were active trading stamp companies; the remaining firms either went out of business during 1956 and early in 1957, could not be located, or did not fulfill specifications for a stamp company as defined in this study. The 199 active stamp companies include all the large and most of the small and medium-sized companies. The scope of the stamp industry for 1956 was ascertained by compiling actual and estimated data for these companies. Of the 199 stamp companies, questionnaires were obtained from 109 companies giving most of the data requested. When actual data is presented in this report it is based on the number of replies from companies answering a specific question. (See appendix for methodology concerning this survey.)

Previous reports have estimated that 370 or more stamp companies were operating during 1955 (19, p.35). 5/ However, a recent edition of a directory of trading stamp houses lists 225 stamp companies, only slightly more than the 199 companies included in this survey (4).

The bulk of the trading stamp business is concentrated in a few large companies. Ten of the largest trading stamp companies accounted for about 70 percent of the business during 1956. Of the 199 companies surveyed, 33 had revenues of more than $1 million each during 1956. These large companies accounted for about 90 percent of the total revenue from stamps. Small and medium-sized firms accounted for the remaining 10 percent. 6/

3/ According to "rule of thumb" used by retail trade, a pad of 5,000 10-cent stamps (1 stamp issued for 10 cents of retail sales) represents about $600 in retail sales.

4/ A trading stamp company is defined as an organization set up solely to distribute trading stamps to all types of retailers and offering a plan by which stamps may be redeemed.

5/ Underlined figures in parentheses refer to items in Literature Cited, pp. 41-42.

6/ Small companies include all those with less than $100,000 revenue from stamps during 1956. Medium companies include those with $100,000 to $1,000,000 in revenues from stamps.

Total revenues more than doubled from 1954 to 1956. This rapid rise was caused both by growth within existing companies and by the formation of new companies. To illustrate the growth within companies, figures of total revenues from 67 companies were compared for 1954 and 1956. They showed an average increase of 88 percent between 1954 and 1956.

The formation of new companies also was rapid during this period. Of the 108 companies supplying information on length of time in business as of July 1957, 39 percent had been in operation less than 3 years (table 1). The most rapid increase took place between July 1955 and July 1956, when 30 of the 108 companies were organized. About 79 percent of these companies had been in operation less than 10 years. The median age for the 108 firms was 3-3/4 years. The number of years in operation as of July 1957 ranged from less than 1 year to 61 years. Only 9 of the companies were more than 25 years old.

Table 1.--Distribution of trading stamp companies according to number of years in operation as of July 1957

Years in operation	Companies	Percentage of total
	Number	Percent
Under 1 year	2	1.9
1 year but less than 2	30	27.8
2 years but less than 3	10	9.2
3 years but less than 5	20	18.5
5 years but less than 10	23	21.3
10 years but less than 25	14	13.0
25 years and over	9	8.3
Total	108	100.0

On the basis of information supplied by 105 companies, it is estimated that the trading stamp industry employs about 14,000 persons. Of these 105 companies, slightly more than one-third had 4 employees or less, while another one-third had from 5 to 24 employees (table 2). Only 12 companies out of the 105 companies employed 100 or more persons.

Table 2.--Distribution of trading stamp companies according to number of employees per company, January 1957

Number of employees	Companies	Percentage of total
	Number	Percent
1	15	14.3
2 - 4	22	21.0
5 - 9	23	21.9
10 - 24	12	11.4
25 - 99	21	20.0
100 or more	12	11.4
Total	105	100.0

Other Characteristics

An estimated one-fourth million retail outlets (all types) were issuing trading stamps as of January 1, 1957. These were located in every State in the United States, although Kansas later adopted a law prohibiting issue of trading stamps. Of the 109 stamp companies supplying information about the geographic scope of their operation, two-thirds were operating in either 1 or 2 States (table 3). Only 9 percent of the firms were operating in 10 or more States.

Table 3.--Distribution of trading stamp companies according to number of States in which they operated as of January 1, 1957

Number of States	Companies	Percentage of total
	Number	Percent
1	47	43
2	25	23
3 to 4	14	13
5 to 9	13	12
10 to 48 1/	10	9
Total	109	100

1/ Kansas law now prohibits issuance of trading stamps.

Survey results indicate that during 1956, trading stamp companies maintained from 1,400 to 1,600 redemption centers in this country. Almost all companies redeemed stamps by mail in at least one of their redemption centers. Many retailers maintained redemption counters within their stores, while others redeemed stamps directly from their stock of merchandise or provided services in exchange for stamps.

Twenty-eight of 107 stamp companies reported they were affiliates or subsidiaries of other companies. Most of these were associated with either promotional organizations (like premium distributing companies), retail outlets, or other stamp companies.

The number of 10-cent stamps (1 stamp issued for each 10 cents of retail sales) required to fill a stamp book ranged from 500 to 1,800 for the 103 companies furnishing information on size of saver-book (table 4). This represents a range in retail purchases from $50 to $180 per book. The most popular stamp book was the one requiring 1,200 stamps to complete--44 out of the 103 companies used this size. Four companies used 25- or 50-cent stamps.

Table 4.--Number of stamps to fill stamp book and minimum retail purchases per book required by 107 stamp companies, 1957

Value of retail purchase for which 1 stamp is issued	Number of stamps required to fill book	Stamp companies reporting	Minimum retail purchase required per book
		Number	Dollars
10 cents.....	500	1	50.00
	620	1	62.00
	735	1	73.50
	900	1	90.00
	1,000	1	100.00
	1,020	1	102.00
	1,200	44	120.00
	1,250	2	125,00
	1,320	4	132.00
	1,380	1	138.00
	1,440	23	144.00
	1,500	16	150.00
	1,740	1	174.00
	1,800	2	180.00
25 cents.....	480	1	120.00
	535	1	133.75
50 cents.....	100	1	50.00
	150	1	75.00
Total	--	107	--

Ninety-five companies responded to the question, "About what percentage of stamps do you estimate will ultimately be redeemed?" Three-fourths of these firms, including all those with revenues of $1 million or more in 1956, reported they expected 90 percent or more of the stamps issued to be redeemed (table 5). Only 5 percent of the firms expected redemptions below 75 percent.

Table 5.--Percentages of stamps that 95 stamp companies expect to redeem 1/

Percentage of stamps that company expects to redeem	Companies	Percentage of companies
	Number	Percent
Below 75	5	5.3
75 - 79	3	3.1
80 - 84	8	8.4
85 - 90	8	8.4
90 - 94	28	29.5
95 - 100	43	45.3
Total	95	100.0

1/ These figures are based on the stated expectations of trading stamp companies.

Food Retailers as Stamp Customers

The retail grocery industry appears to be the best customer of trading stamp companies. The following tabulation shows the proportion of revenue for 101 stamp companies by categories of retail outlets for 1956:

	Percentage
Grocery stores	57.0
Service stations	20.0
Drugstores	4.6
Dry cleaners and laundries	2.4
Hardware stores	2.0
Other	14.0
Total	100.0

Data from these trading stamp companies show that 57 percent of their total stamp business during 1956 was with grocery stores. Of the estimated $20 billion in retail sales for which trading stamps were issued during 1956, about $11 billion were made by grocery stores. This sales volume represents about 30 percent of the total retail grocery sales for the United States, reported to be $39.2 billion in 1956 (16). Most of this volume probably was

in supermarkets. The Bureau of Labor Statistics, in a survey among its sample stores during August 1956, found that about 42 percent of the chain and large independent stores in the sample were offering stamps but only 12 percent of the small independent food stores were doing so (17, Sept.).

For several years there has been an upward trend in the use of trading stamps by retail grocers. The period of most rapid expansion was during 1955 and 1956, when many of the large chains began to use trading stamps as a promotional device. Many smaller food retailers, both chain and independent, followed suit mainly in an attempt to meet competition. Figures are not available to show the extent of the increase in the use of stamps by the food industry. However, of the 10 leading chain store organizations in the country, 7 were issuing stamps extensively by the end of 1956, although none had issued them in 1954. 7/

Data gathered for this study indicate that chain food stores accounted for slightly more than half of the stamp industry's revenue from food stores. These data show that, for 90 stamp companies, 52 percent of their revenue from food retailers came from retail organizations of more than 10 units. The following tabulation offers a further breakdown of these figures: 8/

	Percent of revenue
Companies with more than 50 units..	27
Companies with 10 to 50 units.....	25
Companies with 2 to 9 units.....	19
Single-unit companies.....	29
Total.....	100

HOW TRADING STAMP PLANS OPERATE

Trading stamp plans have at least two things in common--the issuance of stamps by retailers to customers and the redemption of stamps for an item of value. Apart from these basic features, the methods of operation vary considerably. This section describes briefly the operation of trading stamp plans with emphasis on types of ownership, types of redemption plans, and the basic functions of trading stamp plans.

7/ Another of the 10 organizations was issuing stamps to a limited extent by the end of 1956.

8/ Two companies--including one of the largest--reported combined figures for two size groups. In each case, the combined total was divided equally between both size groups.

Ownership

Trading stamp companies fall into three basic groups according to ownership: (1) The independent trading stamp house, (2) the sponsored company which is owned or partially owned by the leading retailers using its services, and (3) cooperative companies owned and operated by a group of retailers within a trade area.

Until a few years ago, independent companies did almost all of the stamp business. Today sponsored companies and cooperative plans have become important. Sponsored stamp companies were operated mainly by small retail organizations before they came into prominence in the food field. In 1955, some of the large integrated food chains began assisting in the formation of such concerns. Regardless of size, sponsored and cooperative stamp companies generally had one element in common--usually they were formed as a defensive measure to withstand competitive pressures exerted by retailers using the services of independent stamp companies.

A few promotional organizations have assisted in setting up trading stamp plans. Although these organizations work with almost all sizes and types of stamp companies, they seem to work most frequently with small cooperative companies. Their principal function is to organize individual stamp plans which are tailored to suit the needs of the retailers concerned. They design and print stamps, saver-books, catalogs, and other promotional material and, if desired, provide merchandise for redemption.

Types of Stamp Plans

The operation of individual stamp companies may vary according to method of redemption. Generally, stamps are redeemed in merchandise; however, some plans redeem stamps in trade or cash. Of the 109 stamp companies which provided data, 80 used conventional redemption plans (redemption merchandise handled through special redemption centers). The remaining 29 companies redeemed stamps in cash or in the merchandise of the participating retailers.

Stamp companies that operate conventional stamp plans issue catalogs which list some of the merchandise available to the stamp saver in redemption for stamps. In addition, these companies maintain redemption centers in which consumers may redeem stamps for merchandise. These redemption centers vary in size according to the need for their services within a community. During the redemption process, the only money that changes hands is for State or Federal taxes when applicable. Mail order is used to redeem stamps in areas where the company has no redemption centers.

A trading stamp company following this plan, in reality, is engaged in merchandising various products commonly sold by nonfood retail stores. The basic difference between the business of a stamp company and a regular retail store is that the stamp company sells stamps (or prepaid merchandise certificates) to retail stores. The retailers, in turn, offer stamps to their customers as a bonus on each purchase. The stamp company will honor the

stamps in merchandise selected from its catalog or held in stock in one of its distribution centers. An analogy could be drawn if one of the large mail-order companies that publishes catalogs and also maintains retail outlets should convert its operation to a similar plan. In this case, the mail-order house would sell stamps or merchandise certificates to retailers who, in turn, would issue them to their customers as bonuses. The stamps could then be redeemed by the mail-order house or by the various retail outlets it maintains.

Another method is redemption of stamps for merchandise stocked by participating retailers. Stamp companies using this type of plan do not maintain redemption centers as such; in effect, each participating retail store is a redemption center. A completed book of stamps has an assigned merchandise value and may be presented to any participating retailer for redemption. The stamp company then reimburses the retailer for each book redeemed. This type of plan, since it is not necessary to maintain a system of redemption centers, may be operated at a lower cost to the stamp company than the conventional plan.

In some States, trading stamp companies redeem stamps in cash because other methods of redemption are prohibited. Many of these same companies allow their stamps to be redeemed in merchandise or service in other States.

There are many deviations from the basic plans just described. Some companies offer a combination of the basic plans; others may even allow the stamp saver to use money as a supplement to stamps to obtain the desired item before sufficient stamps have been accumulated.

Most stamp plans do not have a termination date; therefore, every outstanding stamp is eligible for redemption.

Operation of Stamp Plans

A successful trading stamp plan has at least two principal attributes: (1) It appeals to retailers as a promotional device that will attract and hold customers, and (2) it appeals to customers as a means of obtaining an item of value without a direct outlay of money. Because of these attributes the operations of a stamp company may be grouped under two headings--sale or lease of stamps and redemption of stamps.

Sale or lease of stamps.--Sales activities of a stamp company involve the promotion and distribution of trading stamps to retailers. This is the source from which trading stamp companies secure their revenue; therefore, it is to the advantage of each company to distribute as many stamps as possible. However, for an additional appeal to their retail accounts, most of the stamp companies have a franchise arrangement in which they agree not to distribute stamps to more than one retailer in the same type of business in a specific area. The obvious purpose is to convince the retailer that his store gains an advantage over competing stores, and that the stamp plan will enable him to create enough new business to more than offset its cost.

Competition among stamp companies is so keen that they use many inducements to capture a retailer's business. They compete for retail-store business on the basis of (1) the costs of their stamps to retailers, (2) the scope of their promotional activities to make consumers aware of their brand of stamps, (3) the type and variety of merchandise offered to stamp savers, and (4) the convenience with which stamp savers can redeem stamps.

To make more of their stamps available to customers of an area, stamp companies generally try to sign up a "family" of noncompeting stores such as a grocery store, a drug store, and a service station. The grocery store is usually a supermarket, as a large proportion of consumers' weekly expenditures are spent in these outlets. In theory, consumers will make routine purchases from other retailers issuing the same brand of stamps as the supermarket. This, supposedly, creates a bond of loyalty between the retailers and their customers.

Redemption process.--The redemption process is fairly simple. First the stamp company sells or leases the stamps to the retailer, who generally pays the company for the stamps on delivery or within 30 days. The stamps are issued by retailers to customers when purchases are made. Customers accumulate stamps, fill books, and present them for redemption to the retailer or to the redemption center of the stamp company.

The rate at which stamps are accumulated and redeemed is affected by many considerations, some of which are: (1) Interest of the stamp saver, (2) rate of acquisition, including the number of stamp-giving retailers to which the consumer is exposed, and (3) number of books of stamps required to obtain the merchandise desired. In addition, the rate of redemption -- ratio between the number of stamps issued by a company and the number of stamps redeemed--may be affected by the maturity and growth pattern of the stamp company. In a new company just beginning to operate, the number of stamps redeemed is smaller than the number of stamps issued during the first months or year of operation, because new stamp savers must accumulate specified quantities of stamps before redeeming any. This lag in redemptions may be experienced also by older companies during periods of rapid growth when many new accounts are added. When volume levels off or declines, rates of redemption may begin to rise and the number of stamps redeemed may even exceed the number of stamps issued during a given period.

Another feature of the redemption process determined by stamp company policy is the cash or merchandise value of the stamps redeemed for consumers. As previously noted, filled stamp books may be redeemed in cash, in the merchandise of the retailer issuing the stamps, or in merchandise supplied by the stamp company through redemption centers (or central office).

Many companies maintain a reserve fund to cover redemption liability created by issuance of stamps. This fund is accumulated as the stamps are distributed to retailers. The amount of the reserve is determined by forecasting the rate of redemption and by company policy in regard to redemption value. Reserve funds are not regulated by law in any State.

The principle of redemption value can be demonstrated by reviewing the operation of a hypothetical company that redeems its stamps in the merchandise of the retailer issuing its stamps. The stamp company reimburses the retailer for the stamps redeemed at an assigned value per stamp-book. Suppose this company licenses retailers to issue its stamps at $13 per pad of 5,000 stamps. If 1,500 stamps are needed to fill a saver-book, then the pad of 5,000 stamps that the retailer received is equivalent to 3-1/3 saver-books. Assume the company policy has set the redemption value of each saver-book at $3. This is equivalent to a redemption value of $10 for the pad of 5,000 stamps, assuming that all of the stamps are redeemed. In this hypothetical example, company policy limited maximum redemption value (cost of redemption to stamp company) to about three-fourths of the gross revenue of the stamp company. The remaining one-fourth went for operating and promotional expenses and net profit.

If this hypothetical company is interested only in a short term profit it will gain from a low rate of redemption. Every decrease of a percentage point in the rate is equivalent to an increase of 10 cents in gross profit on each pad of stamps issued. However, if the company is interested in maintaining and expanding its volume of business it is more likely to pursue policies that will insure maximum redemption.

In this example, there are several opportunities for the stamp company to make a profit from its operation. The first opportunity occurs in the difference between total redemption value and gross revenue from stamps after all operating expenses have been taken out. The second is profit derived from the stamps that are not presented for redemption. Seventy-five percent of the companies surveyed indicated that they expect ultimately to redeem more than 90 percent of the stamps issued.

A third opportunity for profit is due to the free operating capital available to stamp companies. Because stamps are usually paid for at time of delivery or within 30 days, the time between issuance and redemption provides stamp companies with interest-free working capital. This is a unique advantage that most businesses do not enjoy.

For stamp companies that redeem stamps in premium-type merchandise and maintain redemption centers, there is another opportunity to receive a profit from the merchandise they distribute. This profit depends on the difference between the price the stamp companies pay for the premiums (merchandise) they offer and the retail value of the premiums, less their costs of handling premiums.

LEGAL ASPECTS

This section presents a few highlights of the legal issues involved and some of the recent legal actions relating to trading stamps. It does not review in detail the long and interesting legal history of trading stamps. 9/

9/ With the exception of specific references, information about legal aspects of trading stamps was obtained from State attorney generals and from one of the oldest trading stamp companies.

Almost since the inception of trading stamps in the 1890's, attempts have been made to regulate or prohibit them by court litigation or by legislative action. As early as 1916, the United States Supreme Court ruled in three cases that prohibition of the use of trading stamps by State legislatures did not violate the fourteenth amendment of the Federal Constitution. 10/ In essence, this placed decisions about the legal status of trading stamps within the jurisdiction of each State.

Between 1917 and 1954, the trading stamp issue was before the Federal Trade Commission at least 6 times. On each occasion, "the Commission's action was directed against certain acts, practices, or representations of the 'promoter' which were found to be in violation of the general national policy against selling merchandise by lottery, or provisions against exclusive dealing or price discrimination. In no case did the Commission hold that trading stamp plans in themselves were unlawful." 11/

During 1956 and 1957 the Federal Trade Commission conducted an investigation to determine whether certain stamp companies were operating in violation of the Federal Trade Act or the Clayton Act. As a result, the Commission announced on October 3, 1957, that "it did not consider trading stamp plans in themselves to be an unfair method of competition under the laws it administers, and concluded not to issue any complaints at this time prohibiting the use of trading stamps" (see footnote 11). At the same time, the Commission emphasized that it intended to continue studying trading stamp plan operations and would take action if violations of specific provisions of the law were found.

The investigations by the Commission and the rulings by the United States Supreme Court constitute the greater part of legal actions concerning trading stamps which originated at the Federal level. The other part of the inquiry concerning stamps has been litigation in the State courts and actions by State legislatures and municipal governments.

The courts have been concerned with whether trading stamps come under jurisdiction of existing State statutes which do not specifically refer to trading stamps. Retail price maintenance laws, which have been enacted by 45 States, have been the subject of much legal debate concerning their applicability to trading stamps. 12/ The basic issue revolves around the question as to whether or not the issuance of trading stamps with the sale of a "fair traded" item represents a price reduction or a discount. With few exceptions, the courts have held that trading stamps represent a discount and therefore do not violate the retail price maintenance laws.

10/ Rast v. Van Deman & Lewis Co., 240 U. S. 342; Tanner v. Little, 240 U.S. 369; and Pitney v. Washington, 240 U. S. 387.

11/ Federal Trade Commission. FTC Issues Statement on Trading Stamps. Press release, Oct. 3, 1957.

12/ Retail price maintenance laws include acts pertaining to fair trade, unfair sales or sales below cost, and motor fuels.

The question whether trading stamps come under the prohibitive powers of the gift enterprise statutes that exist in many States has been tested in the courts numerous times. Most of these decisions have been favorable to trading stamps, on the grounds that trading stamp plans are not subjected to an element of chance or lot and therefore cannot be classified under the gift enterprise statutes. The chief exception to this is the gift enterprise statute in the District of Columbia, which goes beyond most laws of this nature and prohibits the sale of an article or ticket of admission with a promise to give in return an article or thing in consideration for the purchase. Three court decisions have upheld this statute; therefore, trading stamps are not issued in the District of Columbia. 13/

Attempts have been made to require trading stamps to be registered as securities. This was tried under the Oregon Blue Sky Law in 1951. 14/ The court held that trading stamps were not securities under this law. Three attorney generals in different States have reached similar opinions.

A brief was recently filed before the Securities and Exchange Commission stating that trading stamps come under the United States Securities Act of 1933. The Commission ruled that trading stamps are not securities in the meaning of the Act and are not subject to provisions of the Act. 15/

Aside from general statutes that have been employed to prohibit or regulate trading stamps, there are State statutes that were designed specifically to regulate trading stamp activity. The degree of regulation ranges from outright prohibition in Kansas to very minor regulation in some States.

The 1957 Kansas Legislature passed an act which prohibits the issuance of trading stamps after April 16, 1958. This act came after 40 years of administering a law that provided for a prohibitive tax on all companies that redeemed stamps in merchandise. A 1917 act exempted redemptions of stamps in cash or in the merchandise of the merchant's general stock.

A 1913 act in the State of Washington imposed a prohibitive tax on stamp companies redeeming stamps in merchandise. The statute does not apply to stamps that are redeemed in cash. A 1918 statute in Wisconsin prohibited the redemption of stamps in merchandise; however, it provided for redemption in cash.

Statutes in seven States provide for redemption of stamps in either cash or merchandise at the option of the holder. 16/ Consequently, the cash value must be printed on the face of each stamp in these seven States as well as in Wisconsin and Washington. Cash redemption can be demanded for any number of stamps in some of these States, while others in this group require that a minimum aggregate value be accumulated before cash redemption is compulsory.

13/ Lansburg v. District of Columbia, 11 App. D.C., 512; District of Columbia v. Kraft, 35 App. D.C. 253; and District of Columbia v. Gregory, 35 App. D.C., 271.
14/ Sperry and Hutchinson Co. v. Hudson, 190 Ore. 458
15/ Securities and Exchange Commission, press release No. 3890, Jan. 21, 1958
16/ Indiana, Maryland, Nebraska, New Jersey, North Dakota, Ohio, and Utah.

Merchants in Indiana, Maryland, Nebraska, New Jersey, Ohio, Utah, and Washington are liable for the redemption of the stamps they issue if the stamp company fails to redeem them. Maryland and Utah require trading stamp companies to post a bond before they may operate in the State. Maryland requires a $25,000 bond, while Utah requires a $20,000 bond.

During 1957 approximately 100 bills concerning trading stamps were proposed in the legislatures of 35 States. 17/ Only 4 were enacted; the rest were defeated or died in committee. Thirty-three bills were directed toward tax legislation; 2 of these passed, but a State court declared 1 of the 2 unconstitutional. Many of these tax measures would have made it uneconomical for a stamp company to operate. There were 27 bills that contained escheat provisions, none of which passed. These bills provided that unredeemed stamps issued within the State would become property of that State after a specified number of years from date of issue. Of the 12 bills in 7 States that were designed to prohibit stamps completely, 1 passed. Regulatory provisions were contained in about 63 bills, only 1 of which passed. 18/ Types of regulatory provisions varied considerably and fell within the following general classifications: (1) Establishment of cash redemption value, (2) optional redemption in cash or merchandise, (3) bonding of stamp companies, (4) name of redeeming company to be printed on stamps, (5) registration of stamp companies, (6) bonding of stamp-issuing merchants, (7) cash redemption, (8) an increase in cash value of stamps, (9) report of unredeemed stamps, (10) issuance of stamps only in county where sold, (11) reserve to be established, (12) value to be printed on saver-book, and (13) issuance of stamps in larger denomination. Other provisions prohibited (1) exclusive contracts and (2) issuance of stamps with certain commodities, for example, milk, eggs, poultry, gasoline, or cigarettes.

Of the 4 States that enacted laws in 1957 affecting trading stamps, Kansas was the only one to prohibit the use of trading stamps.

Tennessee passed a bill which levied a prohibitive tax on both the stamp company and the merchant issuing the stamps. The act increased the privilege tax imposed on trading stamp companies from $300 to $600 per year, with an authorization for counties and municipalities to levy a like tax. Prior to amendment, the $300 was leviable by counties and cities. In addition, the law provided for a 2 percent gross receipts tax on all merchants who use any stamp merchandising plan and who do not redeem such stamps in cash or in merchandise from their stores. This law was declared unconstitutional by the Tennessee Supreme Court on July 29, 1957, on the grounds that it imposed a prohibitive tax on merchants issuing stamps.

Less restrictive than the Kansas and Tennessee bills were two bills passed by North Dakota and West Virginia. The North Dakota bill requires optional redemption in cash or merchandise. The West Virginia bill raised the annual license fee from $100 to $175 for each county in which a trading stamp company operates.

17/ Forty-three State legislatures were in session in 1957.

18/ Some bills contained more than 1 provision; therefore, the number of bills represented in the various categories add to more than 100.

As previously stated, the legal status of trading stamps is primarily in the hands of the States. There was no uniformity in the legislation covering the operation of stamp companies. Likewise, contracts between stamp companies and retailers varied considerably, particularly in the protection afforded consumers as to redemption rights and in company reserves maintained for consumer protection.

COST OF TRADING STAMPS AND IMPACT ON PRICE, VOLUME, AND PROFIT

Trading stamps represent an expense to retailers. The crux of the trading stamp issue is the question of who actually bears this expense and who benefits. Critics maintain that consumers bear this expense through increased food prices, while those who favor stamps argue that stamps do not increase food prices. Moreover, they argue that under certain conditions stamps increase retail volume of sales sufficiently to offset the cost of the stamps and provide additional profit for the retailer.

The possibility of retailers increasing prices to cover the cost of stamps hinges on the local competitive situation and the appeal of stamps to consumers. Price increases offer the danger of losing customers to competing stores. Therefore, retailers must use discretion if they raise food prices to offset the cost of stamps.

Increased sales volume which produces enough economies in operating expense to offset the additional cost of trading stamps is, of course, the preferred alternative for the retailer. Studies have shown phenomenal increases in sales after the introduction of stamps by some retailers, while for other retailers, facing a different set of competitive conditions, stamps have produced little or no increase in sales (11, 19). How much sales increase after stamps are introduced may depend in part on the share of the market the retailer controls. The percentage increase in sales is likely to be greater for a retailer who controls a small share of the market than for a retailer controlling a large share.

Another possibility for offsetting the cost of stamps is through reduction of the cost of goods to the retailer. This may be tied in with increased sales volume, which would theoretically enable a retailer to take advantage (within the limits of the Robinson-Patman Act) of volume discounts offered by wholesalers.

A retailer might also increase the proportion of high-markup items in his store, or he might offer fewer low-price weekend specials.

The retailer who introduces trading stamps may adjust to the additional cost by accepting lower profits per dollar of sales. However, the relatively low profit ratio per dollar of sales in some supermarkets may not be enough to offset the cost of stamps.

The possibility of entirely offsetting the cost of stamps by any one particular method may be rather remote. In balancing the advantages and disadvantages of the alternatives, a retailer may wish to use some combination of two or more methods depending on the individual competitive situation. Motives for issuing stamps may vary considerably among retailers within a market area and may affect the method of recovering the cost of stamps. The principal reason for the first retailer in an area to introduce stamps may be to increase profits through increases in sales volume. If an increase materializes, it may mean reduced sales volume for some competing retailers. Assuming that trading stamps do not increase the overall food consumption within a market area, they may be considered a promotional device used for the reallocation of sales volume. The retailer who loses sales or whose sales volume is threatened may as a defensive measure introduce stamps in an attempt to regain lost sales and to gain additional sales if possible. In this situation, the mechanics for offsetting the cost of stamps may vary considerably between retailers depending on the relative success of the individual stamp programs.

As pointed out in a previous publication by the Department, trading stamps may be a contributing factor in the swing of business away from the smaller or less efficient stores to the larger, more efficient stores (13). It was pointed out that the reduction in costs per unit of sales due to increased sales volume of those that remain in business may result in enough savings to offset at least some of the cost of stamps.

The preceding discussion has presented some of the alternative methods a retailer may use for offsetting the cost of stamps. In an attempt to shed light on changes which have actually taken place, the following sections of this report will present data illustrating the cost of stamps to retailers, the effect of stamps on retail sales volume, and changes in retail food prices and in profits associated with the use of trading stamps.

Cost of Stamps to Retailers

Grocers who gave trading stamps during 1956 are estimated to have paid out more than $200 million to provide this service to their customers. Costs of trading stamps to all retailers averaged $2.25 per 1,000 (10-cent) stamps, based on charges made by 109 stamp companies in this survey. The price of stamps to retailers varied by size and type of stamp company. For stamp companies which redeemed stamps in premium-type merchandise, the average price charged retailers by the small and medium-sized firms was $1.97 per 1,000 stamps, while the prices charged by the large stamp firms in this group averaged $2.26 per 1,000 stamps. 19/ The average for the companies that redeemed stamps in the merchandise of the retailer issuing stamps was $2.27 per 1,000 stamps. The amount individual retailers paid for stamps varied from $1.60 per 1,000 stamps for

19/ Stamp companies with under 1 million dollar volume in 1956 were classed as small and medium firms. Those with volume of $1 million or more were classed as large firms.

sponsored plans to as much as $3 per 1,000 for small quantity purchases from trading stamp houses. Generally, sponsored plans cost retailers less than comparable plans offered by trading stamp houses. Users of large numbers of stamps are usually accorded a volume discount. Food retailers are more likely to be eligible for such discounts than retailers in other fields.

The cost of trading stamps to retail stores per dollar of sales varies considerably, depending on the type of plan used (whether sponsored or trading stamp house) and on the aggressiveness of the retailer in promoting the plan. For example, the retailer's cost per dollar of sale will be greater (1) if stamps are issued to all customers rather than only to those who ask for them, (2) if double stamps are used to promote shopping on certain days of the week, or (3) if stamps are given on every item rather than exempting some items.

Trading stamps may represent an additional promotional expense for retailers. According to a report by the Harvard Business School (2, pp. 18-21), the expenditures in 1956 by 12 medium-size chains for newspaper and other advertising equaled 0.76 percent of the value of their sales, while expenditures of these chains for trading stamps equaled 1.69 percent of the value of their sales. Comparable figures are not available for large chains. However, the Harvard report shows that promotional costs of 23 chainstore companies as a percentage of the value of their sales were substantially larger in 1956 than in 1955. The report stated that practically all of this increase came as a result of increased use of trading stamps. This study further shows that advertising expense as a percentage of sales may vary by size of chain. It was substantially less for 15 large food chains than it was for 8 medium chains. The median advertising expense as a percentage of sales for 15 large food chains increased from 0.73 percent in 1955 to 1.81 percent in 1956. For 8 medium-sized food chains, this expense increased from 1.42 percent in 1955 to 2.32 percent in 1956.

Advertising by retailers through ordinary channels such as newspapers or radio and television, in contrast with trading stamps, is subject to economies of scale. For example, the cost of newspaper advertising for an organization with a large share of a given market is less per unit of sales than the same type of advertising for an organization with a relatively small share of the market. The cost of trading stamps is not subject to such economies--it remains proportionate to changes in sales volume within an organization.

The extent that other patronage incentive plans have been introduced by food store operators as a result of increased competition created by stamps is not known. A BLS survey showed that 31 percent of the stores surveyed used trading stamps while 11 percent used other incentive plans only, and another 11 percent used trading stamps and other incentive plans (17). The remaining 47 percent of the retailers surveyed reported using no sales incentive plans. The survey also showed that the increase in the use of other incentive plans generally came about during the same years in which trading stamps were initiated.

Prices

To provide information on price changes associated with the addition of trading stamps, the Agricultural Marketing Service arranged with the Bureau of Labor Statistics to make a special tabulation of retail food prices collected for its Consumer Price Index. The index is published monthly and is currently used as a basis of adjusting wage rates for many wage earners in this country.

As a first step, BLS conducted a survey in August 1956 of the food stores in a sample of 46 cities to ascertain which stores were issuing stamps and when stamps were introduced in each of the stores. This survey showed that (1) the stores which took on stamps were predominantly chain and large independent stores, and (2) the period of most rapid introduction of stamps by BLS sample stores was from September 1955 through July 1956. 20/ This 11-month period was adopted as a criterion in the selection of stamp stores for the study. Only those stores that began using stamps during that period were included in the sample for the study.

On the basis of that survey and a resurvey in March 1957, the BLS found 21 cities in the sample within which price changes in stores which began to use trading stamps could be compared directly with price changes in stores not adding stamps. 21/ In each of these cities all chain and large independent stores from the BLS sample were classified either as (1) "stamp" stores--those which adopted stamps between September 1955 and July 1956 and were still issuing stamps in March 1957, or (2) "nonstamp" stores--those which did not issue stamps at any time from November 1953 to March 1957. Forty-two stamp stores and 53 nonstamp stores were included in the study.

Retail price data were tabulated in index form for the two classifications of stores in each city every third month from November 1953 through May 1956, and monthly from August 1956 to March 1957. Individual products and cities were weighted according to the expenditure weights used by BLS in computing its Consumer Price Index for food. These data for each city were combined by weighting by the average number of stamp and nonstamp stores in each city. Separate indexes were tabulated for each of five major product groups and for all the groups combined. These indexes show the change in retail prices, not the average level of prices.

The BLS Wholesale Price Index on all foods also was obtained for the same months for which retail prices were gathered. This index, with some exceptions, covers essentially the same items at the wholesale level that the BLS "foods at home" index does at retail (cereal and bakery products; dairy products; fruits and vegetables; meats, poultry, and fish; and other foods).

20/ BLS defines chain stores as organizations having 3 or more units in a city. They define large independent stores as large food retailers with less than 3 units in a city and with a large volume of sales in relation to other independent stores in that city.

21/ These cities were located in all parts of the United States except the Pacific Coast and Rocky Mountain States, in which none of the cities surveyed had both stamp and nonstamp stores meeting the requirements for comparison.

Price changes when stamps were added.--Changes in these price indexes for all 21 cities combined showed that prices in the stamp stores averaged 0.7 percent higher after stamps were added (August 1956-March 1957) than before (November 1953-August 1955). In these same cities and between the same time periods, prices in nonstamp stores increased an average of 0.1 percent. The average relative price increase in stores adding stamps was thus 0.6 percent greater than in the nonstamp stores. 22/

The price increases of 0.1 and 0.7 percent observed in the sample stores in the 21 cities appear to be consistent with an overall price rise of 0.3 percent during the same period as measured by BLS food prices in 46 cities.

Wholesale food prices between these same time periods decreased by an amount equivalent to 1.0 cent per dollar of retail sales. This wholesale price decline and the concurrent retail price rise indicate an increase of about 1.7 cents in the wholesale-retail price spread over the base period for stores adding stamps and an increase of about 1.1 cents for the stores not adding stamps. This indicated increase is substantiated by financial reports of large chains (2, p. 5).

Price indexes also were computed separately for the five major food groups in the BLS index. The average price change in stamp stores relative to nonstamp stores for these groups ranged from -2.1 percent for fruits and vegetables to +1.6 percent for other foods (eggs and miscellaneous prepared foods, see BLS monthly publication "Retail Food Prices by Cities" for itemized list). With the exception of fruits and vegetables, the price increase for each group was higher in stamp than in nonstamp stores (table 6).

Table 6.--Index of retail prices in stamp and nonstamp stores for 21 cities in period after stamps were added, August 1956-March 1957 (Index before stamps, November 1953-August 1955 = 100)

Commodity group	Price index after stamps were added		Price change in stamp stores in relation to nonstamp stores
	Nonstamp stores	Stamp stores	
	Index	Index	Percent
Cereal and bakery products	103.3	104.4	+1.1
Dairy products	103.7	104.5	+0.8
Fruits and vegetables	106.9	104.9	-2.1
Meats, poultry, and fish	94.2	95.3	+1.3
Other foods	98.2	99.7	+1.6
Average, all foods	100.1	100.7	+0.6

22/ Based on an analysis of variance, this difference was statistically significant at the 5 percent probability level. See appendix for further details on statistical methods.

Price differences for cereal and bakery products, dairy products, and other foods can be interpreted with greater certainty than those for meat products and fruits and vegetables. 23/ Prices and qualities of many meat products and fresh fruits and vegetables are more variable than most foods in the other groups since they are not usually branded items with standardized prices, and also because of seasonal variations in supply, perishability of products, and other factors. As the periods before and after stores added stamps were not matched seasonally, a strong seasonal pattern in the data may have distorted the results, especially if the two groups of stores tended to have different pricing policies. (The possible influence of different pricing policies is discussed in the following section.)

Because factors other than stamps could have influenced prices at the same time, these data do not indicate with any high degree of certainty the increase in wholesale-retail price spread properly attributable to the addition of stamps. The findings presented up to this point are that there was, on the average, a greater relative price increase in the stores that added stamps than in the nonstamp stores during the period studied, and that there was an increase in spread between wholesale buying prices and retail selling prices in both the stamp and nonstamp stores.

Wide variations in relative price changes between stamp and nonstamp stores among the 21 cities were indicated (fig. 1). Such variations may help to account for the many differences of opinion with regard to the overall impact of the use of stamps on food prices. The share of the market that the stamp stores have in a particular area, the devices used by nonstamp stores to offset stamp competition, and other factors not directly associated with the introduction of trading stamps can influence trends in relative prices of stamp and nonstamp stores in particular localities. In 2 cities, representing 11 percent of the stores in the study, the average price increase in stamp stores, after the addition of stamps, was at least 3 percent greater than the increase in nonstamp stores. The difference was more than the average cost of the stamps. However, in 8 cities with 41 percent of the stores, prices in the stores that added stamps declined in relation to those of their nonstamp competitors. This relative price decrease was greater than 2 percent in 1 city, but less than 2 percent in 7 other cities. In the remaining 11 cities, with 48 percent of the stores, prices in the stamp stores rose by not more than 2 percent in relation to stores not adding stamps.

Other researchers have studied the effects of stamps on food prices by classifying cities according to percentage of stores in the BLS sample of stores that were giving stamps as of August 1956. According to these studies, prices have not risen in the cities with the heaviest concentration of stamp stores relative to prices in cities with little or no use of stamps (1, p. 130; 5, pp. 10-18). Results given in these reports suggest that increased competition in cities with more trading stamps may have tended to keep prices from rising as much in nonstamp stores as they might otherwise have risen.

23/ Analysis of variance indicated that the differences measured were statistically significant at the 5 percent probability level for each commodity group except for fruits and vegetables and for meats, poultry, and fish.

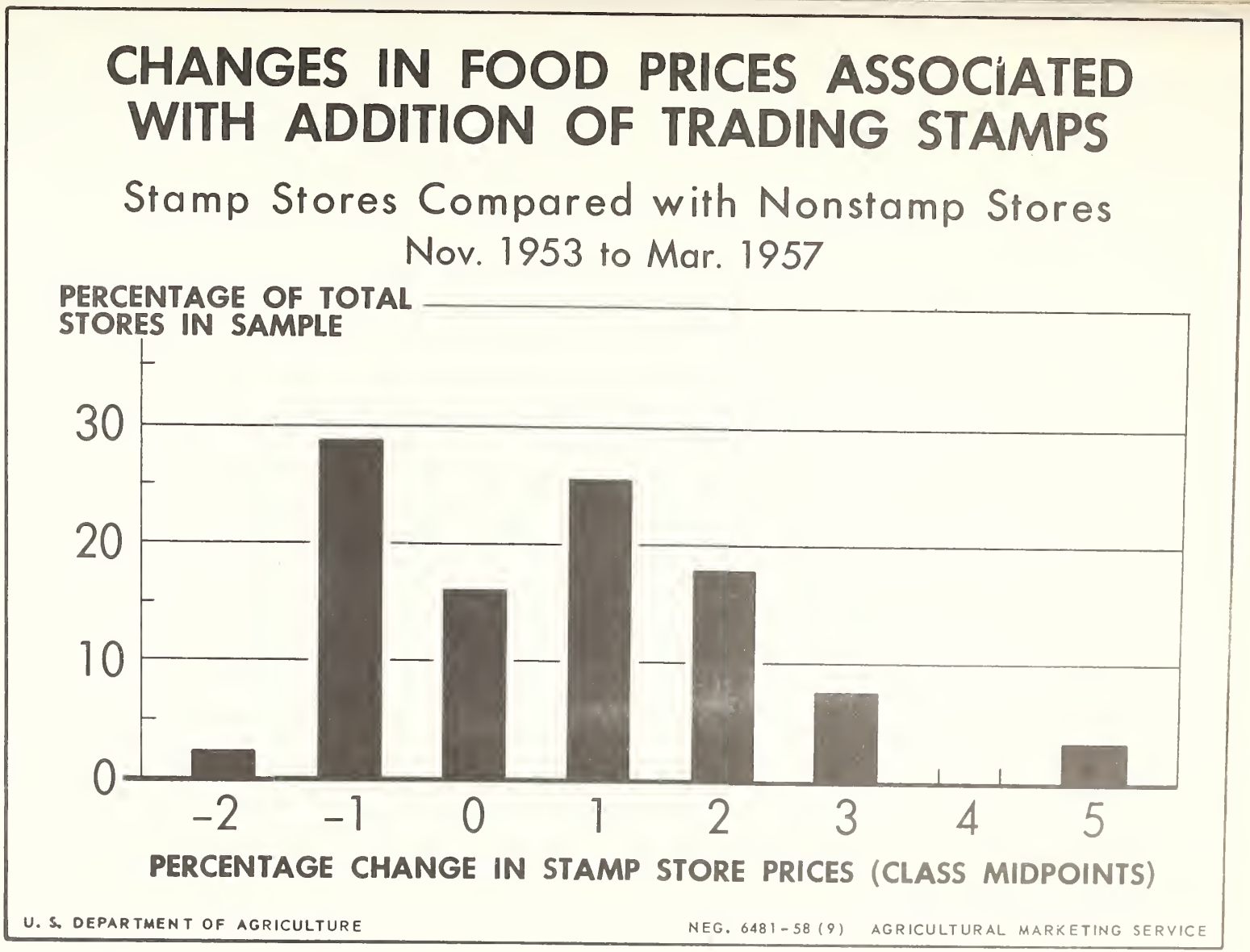
CHANGES IN FOOD PRICES ASSOCIATED WITH ADDITION OF TRADING STAMPS
Stamp Stores Compared with Nonstamp Stores
Nov. 1953 to Mar. 1957
PERCENTAGE OF TOTAL STORES IN SAMPLE
30
20
10
0
-2
-1
0
1
2
3
4
5
PERCENTAGE CHANGE IN STAMP STORE PRICES (CLASS MIDPOINTS)
U. S. DEPARTMENT OF AGRICULTURE
NEG. 6481-58 (9) AGRICULTURAL MARKETING SERVICE

Figure 1

In contrast, researchers in another study state that "housewives in Salt Lake City pay 4 percent more for groceries for the privilege of licking trading stamps" (6). This finding is based on an analysis of weekly retail prices obtained from 8 supermarkets in Salt Lake City from November 1956 to November 1957 for 50 food items. Prices in the 8 stores rose after the introduction of stamps by a major chain in November 1956 and tended to level off when stamps were introduced by many competing stores in February 1957. Retail food prices increased 5 percent with the introduction of stamps while wholesale prices increased less than 1 percent.

Supplementary Evaluations

Survey of food prices.--As a supplement to the price study using BLS data, a 1-week survey of retail food prices was made by AMS in 16 stamp and 15 nonstamp chain and large independent stores in 5 midwestern and eastern cities during 1957. The purpose of this survey was to obtain information concerning two criticisms that might be made of the use of BLS data. One of the criticisms is that stores offering stamps might charge higher prices for items not regularly purchased by housewives; the 73 items included in the BLS price index generally are the items regularly purchased. The other criticism is that BLS gathers its prices only during the first part of the week and therefore the average price does not include the influence of special prices usually offered by retailers at the end of the week. It has been suggested that stores giving stamps might offer fewer weekend specials than nonstamp stores.

Paired stamp and nonstamp stores were selected in each city. Prices for 160 food items were checked once during the first half of the week (Monday through Wednesday) and again during the second half of the week (Thursday through Saturday). All of the 73 food items included in the BLS Consumer Price Index were priced, plus 87 other (generally less often purchased) food items. (See appendix for listing of items included in both groups and a description of pricing techniques employed.) Weighted aggregate prices were computed for the 73 BLS items and for the 87 other food items for stamp and nonstamp stores in each of the 5 cities. A system of appropriate weights was derived from data published by the U. S. Department of Agriculture (12).

The findings show that prices of BLS items in the 5 cities averaged 2.9 percent higher in stores giving stamps than in the nonstamp stores (table 7). In contrast, prices of the non-BLS items averaged the same in stamp and nonstamp stores. These differences between prices of BLS items and other items which showed up in all cities do not substantiate the hypothesis that stamp stores charge higher prices for foods not regularly purchased by housewives. For all items, prices in stamp stores in these 5 cities averaged 2.2 percent higher than in nonstamp stores. 24/

24/ Although a larger number of non-BLS items were priced, the total weight assigned to the BLS items was about three times that of the other items. Many BLS items such as frying chicken, eggs, milk, white bread, round steak, hamburger are important items in most family budgets and thus received larger weights than other less frequently purchased items.

Table 7.--Percentage difference between food prices in stamp stores and those in nonstamp stores during 1-week periods in 5 cities, 1957 1/

Cities	BLS items 2/	Other items 3/	All items
	Percent	Percent	Percent
A	2.5	0.0	1.9
B	3.6	.4	2.8
C	3.0	.1	2.3
D	2.4	-.1	1.8
E	3.0	-.5	2.3
All cities	2.9	0.0	2.2

1/ Average weekly price differentials between stamp and nonstamp stores were computed by applying a double weight to the end-of-week prices, because of the greater volume of weekend sales.
2/ 73 food items included in BLS index.
3/ 87 other food items (not included in BLS index).

Several limitations should be noted regarding these price comparisons. Although these data show that food prices averaged higher in stamp than in nonstamp stores, these differences in prices may not be an accurate measure of the influence of the addition of stamps. Similar price difference could have existed before the issuance of stamps. Price differences may be influenced by differences in services provided and by factors other than the issuance of trading stamps. Price differences between stamp and nonstamp stores were not uniform among product groups or between BLS and other items (table 8). A part of the difference in prices between BLS and other items is accounted for by variations in weighting. For example, the meat, poultry, and fish items, for which exact brand-by-brand comparisons cannot be made, accounted for a considerably larger part of the total weight in the BLS list than in the non-BLS list. Because the price differences between the two groups of stores were larger for these products than for any others except fresh fruits and vegetables, the larger weight given the BLS items tended to widen the average difference between prices of BLS and other items.

A further finding of this special survey was that, in the stores surveyed, weekend price reductions were less in the stamp than in the nonstamp stores (table 9). These data do not indicate to what extent this difference in pricing practice may be accounted for by the addition of stamps. Reducing the number or the size of weekend price discounts is one way stamp stores may recover part of the additional cost of stamps. Surveys by trade associations and trade papers have shown that some food store operators used fewer price specials after adding stamps (11, p. 52). 25/

25/ Information as to the effect of weekend prices on independent and chain stores combined may be obtained from "Retail Food Prices by Cities" (17).

Table 8.--Percentage difference between food prices in stamp stores and those in nonstamp stores by commodity groups during 1-week periods in 5 cities, 1957 1/

Commodity group	72 BLS items	88 other items	All items
	Percent	Percent	Percent
Fresh fruits and vegetables	6.6	9.4	6.8
Frozen foods	3.1	.4	1.8
Dried fruits and vegetables	-1.3	.3	-.9
Dairy products	.6	.1	.3
Meats, poultry, and fish	6.7	-.6	5.8
Canned foods	.7	-.1	.5
Cereals and bakery products	-1.3	.9	-.8
Other foods	.1	-2.5	-.6
All foods (weighted average)	2.9	0.0	2.2

1/ Average weekly price differentials between stamp and nonstamp stores were computed by applying a double weight to the end-of-week prices because of the greater volume of weekend sales.

Table 9.--Price differential for prices at end of week compared with those at beginning of week for 73 items included in the BLS food index for stamp and nonstamp stores during 1-week periods in 5 cities, 1957

City	Nonstamp stores	Stamp stores	All stores
	Percent	Percent	Percent
A	-1.9	-0.7	-1.3
B	-1.1	-.7	-.8
C	-1.4	-1.4	-1.4
D	-1.4	-.6	-1.0
E	-1.8	-.6	-1.2
All cities	-1.6	-.8	-1.2

Effect of different store pricing policies.--Implicit in this study was the assumption that the impact of supply and demand changes at wholesale for individual commodities would be approximately the same for all large stores in a given city. This seems to be a sound assumption. However, if the management of stores entering stamp programs had characteristically different pricing

policies from those of the nonstamp stores, the two groups might show significantly different relative magnitudes of price adjustment to changing market conditions. It is not at all unusual for retail food stores to exhibit widely different magnitudes of price response to market changes (7, p. 7). A study of the price data for the two groups of stores suggested that the pricing policies of stores not adding trading stamps were more sensitive to wholesale market changes than those adding trading stamps.

To correct the data so as to reduce distortion due to the above possibility, the magnitude of normal retail price response to wholesale price changes in the nonstamp stores was compared with that of the stores which took on stamps, city by city. Averages of short-run price changes made by each group from November 1953 to August 1955 (before stamps) and from August 1956 to March 1957 (after stamps were added) were used for this purpose. It was found that price fluctuations tended to be slightly larger in the nonstamp stores. When adjustment is made for this difference in flexibility of prices, the relative price increase in stores adding stamps averaged 0.7 percent more than in the nonstamp stores. This relative average price increase is a little higher but not substantially different from that given by the unadjusted data. 26/

Retail Sales

To evaluate the impact of stamps on retail sales a comparison was made of changes in sales of 5 major retail chain organizations which added stamps in 1955 and during the first quarter of 1956 and 5 major chain organizations which did not. 27/ To match this information with the price data just discussed, only chains with stores operating primarily in the area covered by the price data were included. Also, the data were adjusted for acquisition in recent years by these companies of a number of smaller chain organizations. At the end of 1957 the 5 stamp chains operated 3,904 stores and the 5 nonstamp chains operated 5,680 stores.

Gross sales for both groups of stores increased throughout the period studied (1951-57)(table 10), and in the 4 years before stamps were added (1951-54) each group held a fairly stable proportion of the total sales (table 11). The 5 stamp chains averaged 37.1 percent of the total sales for the 10 chains during the period before stamps were added. After stamps were added by the stamp chains during 1955 and the first quarter of 1956, the share of total sales for the stamp chains averaged 41 percent (1956-57). This represents a 10.5 percent increase in sales by the 5 stamp chains over their average share for the 4 years before stamps were added.

26/ The procedure used to adjust for varying price responses is described in more detail in the Appendix, page 40.

27/ The majority of the stores in the 5 stamp chains are considered to be issuing stamps, though the extent of participation has not been ascertained.

Table 10.--Index of sales volume for 5 stamp and 5 nonstamp food chains, 1951-57

(Index of sales for 1951-54 = 100)

Group	Before stamps				1955	After stamps	
	1951	1952	1953	1954		1956	1957
	Index	Index	Index	Index	Index	Index	Index
5 stamp chains 1/.....	93	95	102	110	120	137	148
5 nonstamp chains.....	90	98	104	109	114	118	126
10 chain average....	91	97	103	109	116	125	134

1/ Stamps added by stamp chains during 1955 and first quarter 1956.
Data from Moody's Industrial Manual and annual financial statements from food chain organizations. Data adjusted for mergers.

Table 11.--Percentage distribution of retail sales by 5 stamp and 5 nonstamp food chains, 1951-57

Group	Share before stamps				1955	Share after stamps	
	1951	1952	1953	1954		1956	1957
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
5 stamp chains 1/.....	37.2	36.6	36.9	37.6	38.8	40.7	41.2
5 nonstamp chains.....	62.8	63.4	63.1	62.4	61.2	59.3	58.8
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Stamps added by stamp chains during 1955 and first quarter 1956.
Data from Moody's Industrial Manual and annual financial statements from food chain organizations. Data adjusted for mergers.

Profits

From 1951 through 1954 the ratio of profits to total sales in the stamp chains increased from 1.03 to 1.34 percent. The ratio of profits to total sales in the nonstamp chains was steady, varying only between 0.89 and 0.92 (table 12).

Table 12.--Net profits as a percentage of total sales for 5 stamp food chains and 5 nonstamp food chains, 1951-57

Group	Before stamps					After stamps	
	1951	1952	1953	1954	1955	1956	1957
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
5 stamp food chains 1/	1.03	1.12	1.24	1.34	1.33	1.24	1.30
5 nonstamp food chains	.91	.90	.89	.92	.96	1.06	1.17

1/ Stamps added by stamp chains during 1955 and first quarter 1956.
Data from Moody's Industrial Manual and annual financial statements from food chain organizations. Data adjusted for mergers.

Profits as a percentage of sales for the 5 stamp chains declined slightly during the period after stamps were added (1956 and 1957). However, during this same period the 5 nonstamp chains experienced a sharp increase in profits as a percentage of dollar sales to 1.06 percent in 1956 and to 1.17 percent in 1957.

CONCLUSIONS

The total cost of trading stamps used by food stores was about the same in 1957 as it was in 1956 (about $200 million) and it is not expected to be much different in 1958. 28/ The advocates of trading stamps claim that stamps more than pay for this cost through reduced charges resulting from increased sales and greater competition. Others believe that the cost of stamps to retail food stores is primarily covered by increased food prices. This study does not fully support either view, but instead, indicates that the cost of stamps was covered in part by reduced costs resulting from increased volume, in part by higher prices, and in part by a decline in profit per dollar of sales.

Wide variations were found among stores with respect to the effect of stamps. The first stores to take on stamps in a particular area usually use stamps as a competitive device which they hope will increase sales and thereby decrease costs enough to offset the additional cost of stamps. Some stores

28/ As these food stores often handle nonfood products, not all of these stamps were issued on food sales.

adopt stamps as a defensive measure to meet competition of others who give stamps. Stores not using trading stamps as a competitive device may emphasize lower prices to hold present customers and to attract new ones. In some instances, stamp competition is met by giving premiums in ways other than through stamps and by other promotional devices.

Effect of Trading Stamps on Consumers

Consumers are interested in trading stamps for other reasons than the effect on retail prices. They also are interested in what they can expect in return for accumulating stamps (13). In a previous publication by the Department, it was pointed out that the merchandise which the consumer receives by redeeming stamps is about 2.0 percent of the purchase dollars required to fill a stamp book and may range from 1-2/3 to 2-1/2 percent, depending on pricing policies of stores from which a similar article could be purchased (14). This study indicates that average prices paid by consumers in stamp stores increased 0.6 percent more than in nonstamp stores--a difference equal to about 30 percent of the average merchandise value of stamps.

Average price changes in stamp and nonstamp stores at the time stamps were added, as reported in this study, do not, of course, measure differences in price level between stamp and nonstamp stores, nor do they necessarily reflect conditions in any given city. The survey of 5 cities indicates that substantial average differences do exist, at least in some cities, and that differences also exist between stamp and nonstamp stores in their end-of-the-week price specials. Individual consumers who have a choice between stamp and nonstamp stores need to carefully compare prices, quality of food, and services in stamp and nonstamp stores in relation to the value of the premiums received from saving stamps in deciding whether saving stamps is worthwhile for them.

Effect of Trading Stamps on Retailers

Comparisons made between stamp and nonstamp stores with respect to change in prices, volume of sales, and profits indicate some of the general differences between these two groups of stores at the time stamps were added. These data do not reveal the extent of success which any individual stores, or chain group, might be expected to achieve in using stamps under their particular set of competitive conditions. It is apparent from several studies that the success or failure of a stamp program depends upon many factors (1, 8, 19). Store managers should consider these factors in relation to their own conditions in decisions regarding the use of trading stamps. Generally, stores that have been among the first in a trading area to adopt stamps are those that report the most success with their use.

In stores adding stamps, the increase in the wholesale-retail price spread, on the average, was greater than in the nonstamp stores, but it apparently was substantially less than the increase in their costs resulting from the added cost of stamps, higher wage rates, and other factors. Part of this difference

apparently was made up by a slight decline in profits per dollars of sales, and part by increased operating efficiency. Based on the comparisons of 5 stamp and 5 nonstamp chains, the increased efficiency in the stamp stores was associated with a substantially greater increase in volume of sales than occurred in the nonstamp stores. The stores adding stamps increased their volume of sales by 34 percent from 1953-54 to 1956-57. Between these dates, volume of sales in stores not adding stamps increased only 15 percent.

Profits in the nonstamp chains rose from 1953-54 to 1956-57. However, operating costs of these stores apparently rose in relation to operating costs (other than stamps) of the stamp stores. Some of the increased costs of the nonstamp stores may include extra outlays to meet stamp competition. In addition, this relative increase in operating costs of the nonstamp stores suggests that they may have obtained a smaller gain in efficient use of labor and facilities than the stamp stores.

Effect of Trading Stamps on Farm Prices

Farm groups have asked whether the costs of trading stamps were reducing the price which farmers otherwise would obtain. Information available is not adequate to answer this question fully, but it appears that they have not had any significant effect.

Probably 75 to 80 percent of trading stamps are issued on sales of food products derived from domestic farm marketings; the remainder of the stamps would be accounted for by sales of imported foods and nonfoods. Gross farm receipts from sale of food products moving into domestic marketing channels totaled about 20 billion dollars in 1957 (15).

As noted earlier, it is not likely that all of the cost of trading stamps has been reflected in increased food distribution costs because of possibly lower profits per dollar of sales and increased efficiencies associated with use of trading stamps. Also, because consumers do receive value from the saving of trading stamps some of them may be willing to shop in a stamp store with slightly higher prices for food than a store not giving stamps. In that case any higher prices and costs would be paid by the consumer rather than being reflected in lower prices to farmers.

Future Trends in Trading Stamps

Growth in the use of trading stamps by the grocery trade appears to have leveled off somewhat. This is due in part to the relatively high degree of stamp saturation among food retailers and to the fact that only a few areas without stamps remain in this country to be pioneered by stamp companies. In some of these areas this can only be accomplished by changing present laws.

The increase in use of stamps by grocery stores during 1957 appeared to be slower than the phenomenal growth experienced from 1954 to 1956. According to trade reports during 1957 some small chains and independent stores dropped trading stamp plans. These, however, probably were more than offset by the introduction of stamps into Chicago by two large food chains and a group of independent retailers during the latter part of 1957. This trend continued into 1958 as stamps were dropped by some food retailers and taken on by others. The continued introduction of stamps into scattered areas of the country by a national chain has probably more than offset declines in the use of stamps by other food retailers during 1958. Some retailers who previously discontinued stamps have reintroduced them recently.

The annual survey of sample retail stores by the Progressive Grocer indicated that sales gains during 1956 and 1957 were about the same for the stores issuing stamps as for those not issuing stamps. Previous surveys in 1954 and 1955 indicated that stores issuing stamps experienced more rapid growth than nonstamp stores. In addition, the 1957 annual report published by the Super Market Institute (SMI) indicates that retailers that have been offering stamps longest have been able to obtain sufficient sales gains to absorb the cost of stamps (19). About 45 percent of the SMI members that took on stamps in 1956 stated sales gains were sufficient to cover the cost of stamps, while in 1955, 51 percent stated that the sales increase was sufficient, in contrast to 88 percent in 1954.

The 1958 annual survey by SMI indicates that the spread of stamps has leveled off among their members (10). About the same proportion of their members offered stamps in 1958 as offered them in 1957. The survey also indicates that more member stores dropped stamps in 1957 than added them. A recent article in the Progressive Grocer also estimates that the use of stamps has leveled off and probably declined in 1958 (8).

The trend toward fewer stamp companies probably will continue as many of the weaker plans that were introduced during the period of rapid expansion go out of business. If this trend continues, it should place the trading stamp industry as a whole on a sounder financial basis.

APPENDIX

Survey of Trading Stamp Companies

In order to determine the overall scope of the trading stamp industry, a mail survey followed by a personal interview of most of the nonresponding firms was conducted during the spring and summer of 1957. This was intended to be a survey of the entire industry, which was determined by compiling a list of 303 firms that were thought to be trading stamp companies. The list was compiled from several sources, including a published directory of trading stamp companies (3), a review of telephone directories of the major cities, and lists, obtained from private firms.

A questionnaire, along with a letter explaining the basis of the study and requesting cooperation, was mailed to each of the 303 firms. Based on the returns from this mail survey and from information obtained by personal visits to all but 35 of the nonresponding firms, it was found that of the 303 firms surveyed, there were 164 operating stamp companies at the time of this survey. The 35 nonresponding firms were assumed to be active stamp companies--bringing the total number of operating companies to 199, of which 109 completed all or part of the questionnaire. Personal contact was established with 55 companies which did not complete the questionnaire.

Out of the 303 firms surveyed 104 were eliminated for various reasons. Fifty-seven companies were out of business (including 23 companies that were known to be out of business and 34 firms which could not be located at the address listed or in the city listed), 18 firms were eliminated because they appeared under more than one name on the original listing, and 29 firms were not included because they did not fulfill specifications for a stamp company as defined for this study.

Previous reports have estimated there were approximately 370 stamp companies operating during 1955 (19, p. 33). However, a 1957 edition of a directory of trading stamp houses lists 225 stamp companies (4). This number compares well with the number of companies (199) found in this survey. An earlier edition of this directory contained some duplications because some stamp companies appeared under more than one name. For this report the number of trading stamp companies was estimated to be from 200 to 225 firms during the first half of 1957. This number may not include all of the small trading stamp companies such as retailers who issue their own stamps and provide redemption in their stores. But it is likely that most, if not all, of the stamp companies with a significant volume were accounted for in this survey.

A copy of the questionnaire used in the survey follows this section.

The estimate of the total revenue of the trading stamp industry for 1956 was based on data contained in 109 questionnaires and information obtained by personal contact with 55 other companies. The 109 schedules included actual dollar volume figures from 20 large companies that had revenues of more than

$1 million during 1956. There were 13 other companies that were estimated to fall within this category, 7 of which completed a part of the questionnaire but did not supply data on volume. Estimates of revenue for these 7 firms were based upon comparisons with companies of similar characteristics. Estimates of revenue for the 6 remaining large companies with which contact was established, but completed questionnaires were not obtained, were based on the average for most of the 20 large firms after removing the influence of the extremely large firms.

Data on revenue were obtained from 82 companies with volume under 1 million dollars. These firms were classified in the following categories: (1) Total revenue from stamps under $100,000; (2) total revenue from stamps from $100,000 to $500,000; and (3) total revenue from $500,000 to $1,000,000. The average revenue for each group was used as a basis for estimating the revenue for 49 of the 55 companies (excluding 6 firms whose volume was estimated with large companies) that did not submit schedules. Each of these firms was classified into one of these groups on the basis of information obtained by personal observation. The average for the appropriate group was applied to each of the 49 firms.

An estimate for the 35 firms from which no response was obtained was based on the average volume of all the 82 small and medium-sized firms. This average was applied directly to the 35 firms since information was not available as to the characteristics of these firms. It was believed that none of these firms had revenues over $1 million.

The overall estimate of 375 million dollars for the trading stamp industry was arrived at by aggregating the individual estimates determined by the procedures just described. In addition, an adjustment of 10 percent was applied to provide for underenumeration and underreporting that may have taken place.

Questionnaire Used in Survey

Budget Bureau No. 40-5717.1
Approval expires 6/31/57

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division

Survey of Trading Stamp Companies

Name of Company _____

Address _____

Name of official supplying this information _____

1. Briefly describe operation of this company. (Include type of trading stamp plan and methods of redemption, use back if more space is needed.)

_____

_____

_____

_____

2. What is the brand name of your trading stamp? _____

3. When did this company first operate a trading stamp plan? _____

Year _____ Month _____

4. If company redeems in merchandise -- Number

(a) How many redemption centers does this company maintain in the United States? _____

(b) How many locations do you maintain for redemption by mail? _____

5. Is this company an affiliate or subsidiary of another company(ies)?

Yes ☐ No ☐

If yes -- give name, address of company(ies) and type of company.

_____

_____

Number

6. (a) How many retail companies issued your trading stamps as of January 1, 1957? _____

(b) How many retail store units are operated by these organizations? _____

(c) How many of these retail store units are issuing your stamps? _____

7. In how many States are the retail units issuing your stamps located? _____

8. Approximately how many employees are employed by this company? _____

9. How many stamps are required to fill your stamp-saver book? _____

10. What is the amount of retail purchase required for which a stamp is issued? _____

11. What was the total number of trading stamps issued or licensed and gross receipts derived from their issuance or licensing by your company for each of the years 1954, 1955, and 1956?

	Number of pads of 5000 stamps	Dollars
1954	_____	_____
1955	_____	_____
1956	_____	_____

12. What proportion of your 1956 trading stamp sales or licensing fee was made to each of the following retail outlets? (Enter percentage of total trading stamp sales going to each of the following categories of retail outlets.)

	Percent
Food stores	_____
Service stations (gas and oil)	_____
Appliance stores	_____
Drug stores	_____
Hardware stores	_____
Cleaners and laundries	_____
Dry goods stores	_____
Others (specify)	_____
_____	_____
_____	_____
Total	100

13. What proportions of the payments for stamps or license fees are made?

(a) Cash on delivery _____ percent

(b) Cash within 30 days _____ percent

(c) Other _____ percent Explain _____

_____

14. For food store accounts only -- Of the stamps going to food stores, what proportion was sold or issued to each of the following types of retail companies?

	Percent
Companies with more than 50 units	_____
Companies with 10 to 50 units	_____
Companies with 2 to 9 units	_____
Single unit companies	_____
Total	100

15. What was this company's net worth January 1, 1957? $ _____

16. (a) What was the total cost to you of merchandise issued in redemption of trading stamps last year (f.o.b. warehouse)? $ _____

(b) Of this total, about what percent was in each of the following categories:

	Percent
Housewares	_____
Toys	_____
Sporting goods	_____
Tools	_____
Small appliances	_____
Luggage	_____
Other	_____
Total	100

17. About what percentage of stamps do you estimate will ultimately be redeemed? _____ percent.

18. What percentage of gross receipts from the issuance or licensing of trading stamps is reserved as redemption liability? _____ percent.

    (a) Is there a legal minimum reserve required? Yes ☐ No ☐

19. Enclose copies of the following:

    (a) The contract negotiated between the company and the retailers using trading stamp plan. If more than one type of contract is used for this purpose, include a copy of each type of contract.

    (b) Premium catalog.

    (c) Stamp-saver book.

    (d) Any other material that describes your trading stamp plan.

BLS Food Items Priced in Shelf Price Survey in Five Cities

Fresh Fruits and Vegetables

Apples	lb.
Bananas	lb.
Oranges	doz.
Lemons	doz.
Grapefruit	each
Potatoes	10 lbs.
Sweet potatoes	lb.
Onions	lb.
Carrots	lb. pkg.
Lettuce	head
Celery	bunch
Cabbage	lb.
Tomatoes	pkg.
Beans, green	lb.

Frozen Foods

Strawberries	10 oz.
Orange juice	6 oz.
Peas, green	10 oz.
Beans, green	10 oz.
Ocean perch fillet	lb.
Haddock fillet	lb.

Dried Fruits and Vegetables

Prunes	lb.
Beans	lb.

Dairy Products

Milk, fresh	1/2 gal.
Ice cream	pt.
Eggs, Grade A, large	doz.
Margarine	lb.

Meats, Poultry, and Fish

Round steak	lb.
Rib roast	lb.
Chuck roast	lb.
Hamburger	lb.
Veal cutlets	lb.
Leg, lamb	lb.
Pork chops, center	lb.
Bacon, sliced	lb.
Ham, whole	lb.
Frankfurters	lb.
Frying chickens	lb.
Lard	lb.

Canned Foods

Orange juice	46 oz.
Peaches	No. 2-1/2
Pineapple	No. 2
Fruit cocktail	303
Corn, cream style	303
Peas, green	303
Tomatoes	303
Baby foods, F&V	4-1/2 oz.
Luncheon meat	12 oz.
Salmon, pink	16 oz.
Tuna fish, chunk style	6-1/2 oz.
Soup, tomato	11 oz.
Beans, with pork	16 oz.

Cereals and Bakery Products

Flour, wheat	5 lb.
Corn meal	1 lb.
Biscuit mix	20 oz.
Rice	1 lb.
Corn flakes	12 oz.
Rolled oats	20 oz.
Bread, white	lb.
Soda crackers	lb.
Vanilla cookies	7-1/4 oz.

Other Foods

Coffee	lb.
Tea bags	pkg. of 16
Cola drink	carton, 36 oz.
Shortening, hydro	3 lb.
Salad dressing	pt.
Peanut butter	12 oz.
Pickles, sweet	7-1/2 oz.
Catsup, tomato	14 oz.
Sugar	5 lb.
Corn syrup	pt.
Chocolate bar	1 oz.
Grape jelly	10 oz.
Gelatin, flavored	3-1/2 oz.

Other Food Items Priced in Shelf Price Survey

Fresh Fruits and Vegetables

Pears	lb.
Spinach	10 oz.
Cauliflower	head
Cucumbers	each
Broccoli	bunch
Green pepper	each
Avocado	each

Frozen Foods

Raspberries	10 oz.
Peaches	10 oz.
Lemonade, concentrate	6 oz.
Potatoes, french fried	9 oz.
Broccoli	10 oz.
Lima beans	10 oz.
Corn, cut	10 oz.
Asparagus, green	10 oz.
Shrimp, breaded	10 oz.
Dinners, turkey	1 portion
Cherry pie	10-1/2 oz.
Beef pie	8 oz.

Dried Fruits and Vegetables

Raisins, seedless	15 oz.
Dates	lb.
Apricots	11 oz.
Figs	lb.

Dairy Products

Cream, half and half	pt.
Cream, whipping	1/2 pt.
Whipped topping	container
Cheese, American processed	8 oz.
Cheese, cottage	12 oz.
Cheese, cream	3 oz.
Cheese food with olives	5 oz.
Butter	lb.
Nonfat dry milk	13 oz.
Ice cream	1/2 gal.
Eggs, Grade A, medium	doz.

Meats, Poultry and Fish

Beef, corned brisket	lb.
Pork sausage	lb.
Turkey, 6-10 lbs	lb.
Dried beef, chipped	4 oz.
Salt pork	lb.
Liver, beef	lb.

Canned Foods

Cherries, sour	303
Plums	303
Apricots	303
Applesauce	303
Apple pie mix	No. 2
Asparagus, green	300
Beets, whole	303
Tomato juice	46 oz.
Baby foods - beef	3-1/2 oz.
Milk, evaporated	14-1/2 oz.
Ravioli with tomato sauce	303
Spaghetti with tomato sauce	16 oz.
Macaroni and cheese	16 oz.

Cereals and Bakery Products

Pancake mix	lb.
Cake mix	20 oz.
Brownie mix	lb.
Muffin mix	12 oz.
Roll mix	14-1/2 oz.
Fudge mix	13 oz.
Frosting, mix, white	pkg.
Baking powder	8 oz.
Baby cereal - oatmeal	8 oz.
Macaroni	8 oz
Noodles	8 oz.
Popcorn	10 oz.
Salted crackers	lb.
Pretzels	7-1/2 oz.

Other Foods

Coffee, instant	6 oz.
Chocolate, instant	lb.
French dressing	8 oz.

Other Foods-Continued

Mayonnaise.....	pt.	Preserves, strawberry.....	12 oz.
Cooking oil.....	qt.	Preserves, raspberry.....	12 oz.
Olives, green stuffed.....	3 oz.	Apple butter.....	12 oz.
Vinegar, cider.....	pt.	Chocolate, baking.....	8 oz.
Pepper.....	2 oz.	Peanuts, salted.....	8 oz.
Salt.....	26 oz.	Potato chips.....	6 oz.
Mustard.....	9 oz.	Corn chips.....	pkg.
Worchestershire sauce.....	5 oz.	Vanilla extract.....	2 oz.
Molasses.....	12 oz.		

In so far as possible the prices for a specific item collected from stamp and nonstamp stores in this survey are comparable within a city. Generally, prices of identical brands and grades were compared; however, when identical items were not available, efforts were made to substitute items of comparable quality. When it was not possible to maintain reasonable comparability for a specific item among all stores within the same city, the item was not included in the analysis for that city.

Measuring Relative Price Changes

Such limitations in sampling methods as may be reflected in the BLS food price indexes are, of course, also reflected in this study. A discussion of BLS methods may be found in a U. S. Department of Labor publication (18, pp. 63-81).

In this study, change in retail food prices of stores adding stamps was compared to change in retail food prices of stores not adding stamps. This comparison was made city by city in each of the 46 cities reported on by BLS in which such comparisons were possible. There were 21 such cities.

Two separate analyses of comparative price changes between stamp and non-stamp stores were made.

In the first analysis the ratio of prices in stamp stores before and after stamps was compared to the ratio of prices between these same time periods in stores not adding stamps, city by city, as follows:

$$\left[\frac{P_{s1}}{P_{so}} \Big/ \frac{P_{n1}}{P_{no}}\right]_i - 1 = R_i$$

Where:

P = Composite average price of all foods weighted by constant quantity.
Sub s = Stores which added stamps.
Sub n = Stores which did not add stamps.
Sub o = Period before stamps were added (average of quarterly months Nov. 1953-Aug. 1955).
Sub 1 = Period after stamps were added (average of months Aug. 1956-Mar. 1957).
R = Relative difference in price change between 2 groups of stores.
Sub i = City designation (i = 1, 2, 3, ...21).

The relative price change for each city, for each group of stores from the period before stamps to the period after stamps, was weighted by the BLS expenditure and population weights as well as by the number of matched supermarkets in the sample in that city, to obtain the average price change over this period for all 21 cities combined for each of the 2 groups of stores. The average price change for all 21 cities was 0.6 percent higher for stamp stores than for nonstamp stores with a standard error of $\pm$ 0.325.

In the second analysis the above approach was modified to allow for the possibility that the two groups of stores being compared may have had characteristically different pricing responses to changing market conditions, and that these differences rather than the addition of stamps may have been the generating force behind relative price differences found in the first analysis.

This refinement consisted first of measuring the average magnitude of percentage change of prices in stamp stores in relation to prices in nonstamp stores for each city within the period before stamps were added (Nov. 1953-Aug. 1955) and within the period after stamps were added (Aug. 1956-Mar. 1957).

Second, this relationship in magnitude of price change between stamp and nonstamp stores plus price change in the nonstamp stores was used to estimate an expected price index in stamp stores as follows:

$$E_i = 1 + e_i \left[\frac{\Delta P_n}{P_{no}} \right]_i$$

Where:

E_i = Expected price for stamp stores in period after stamps in a given city.

e = Average relative magnitude of percent price change of stamp stores to nonstamp stores within the periods before and after stamps were added.

ΔP_n = Change in nonstamp stores prices from period before stamps to period after stamps.

P_{no} = Price in nonstamp stores in period before stamps.

i = City designation (i = 1, 2, 3,···21).

The actual price index for stamp stores was then related to the expected price for each city:

$$\left[\frac{P_{s1}}{P_{so}} \Big/ E_i \right]_i - 1 = R'_i$$

The weighted average relative price change of the stamp stores for all cities was 0.7 percent higher than the "expected" price. The standard error was $\pm$ 0.323. This substantiates the results in the first analysis and indicates the greater price rise in stamp stores was not due to some characteristic difference in pricing policies of the stamp and nonstamp groups and that it must be due to some unique force having a different impact on the stamp and nonstamp groups just at the time stamps were added. This leaves the addition of stamps by the one group as the most likely cause of this price differential.

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